FIG. 1

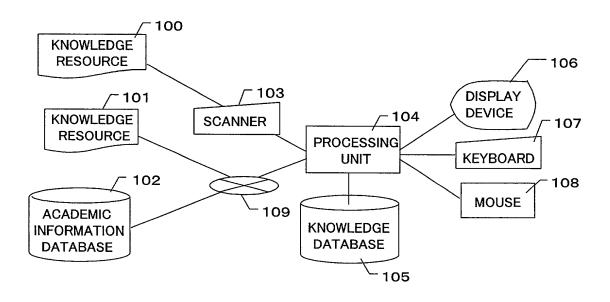


FIG. 2

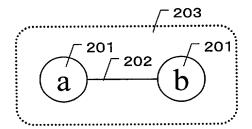


FIG. 3

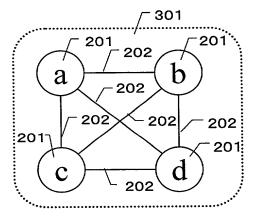
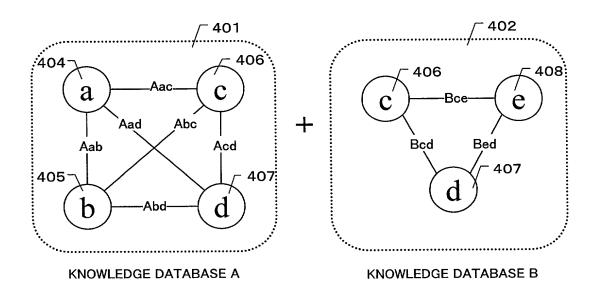
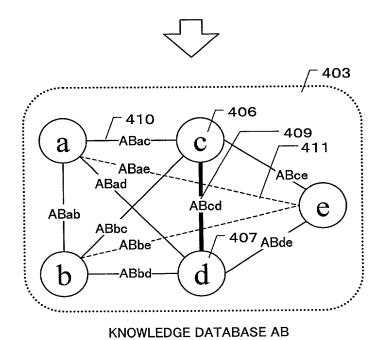
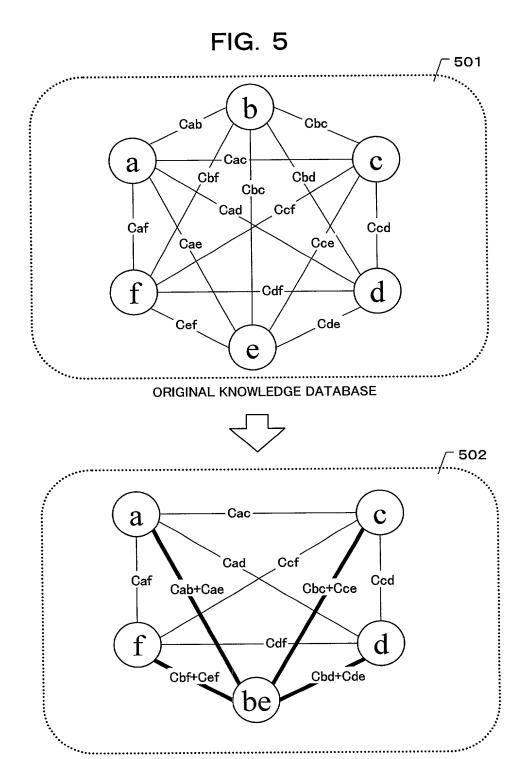


FIG. 4





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KNOWLEDGE DATA BASE AFTER MERGE OF OBJECTS b AND e

FIG. 6

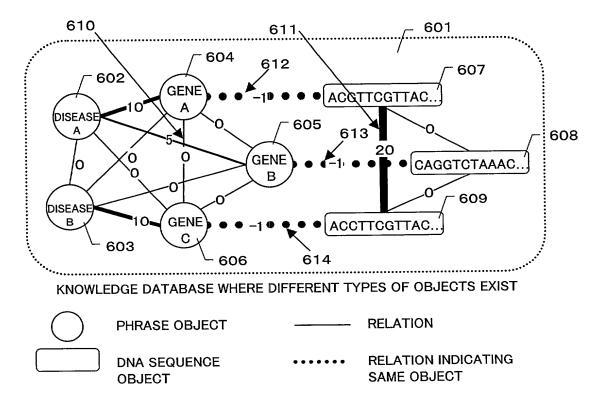
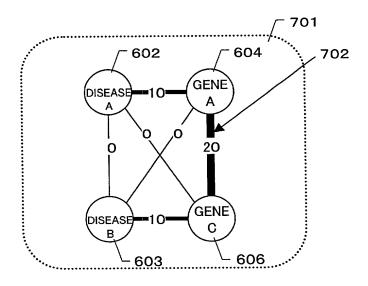
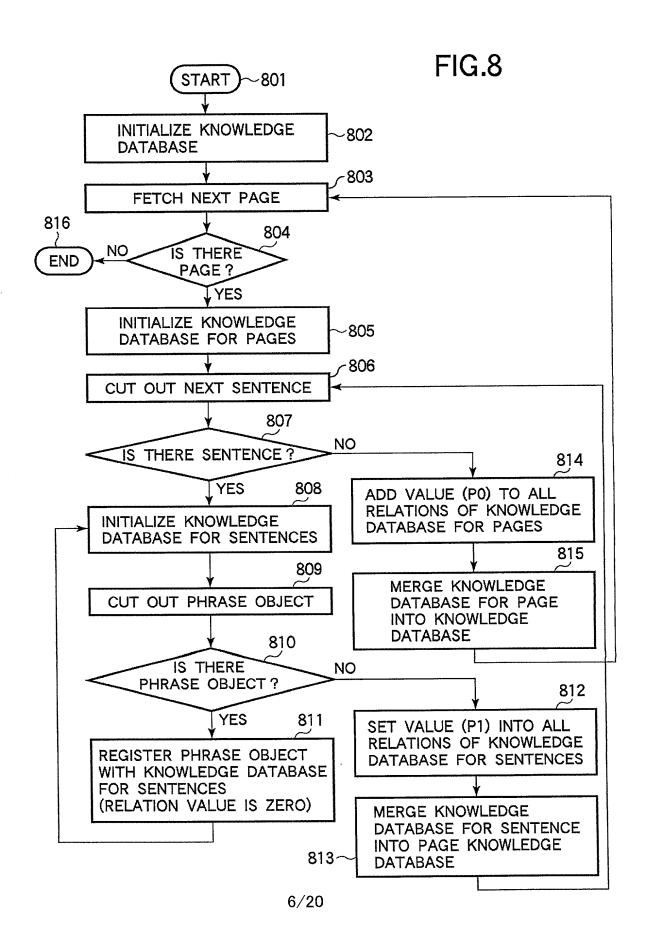


FIG. 7





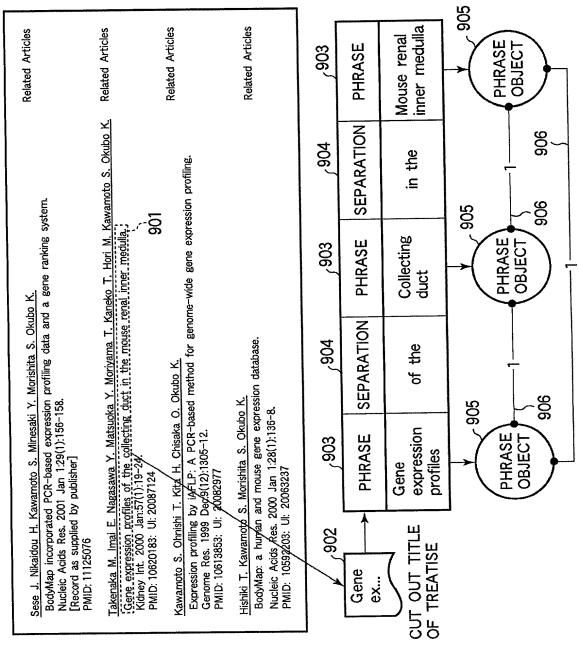
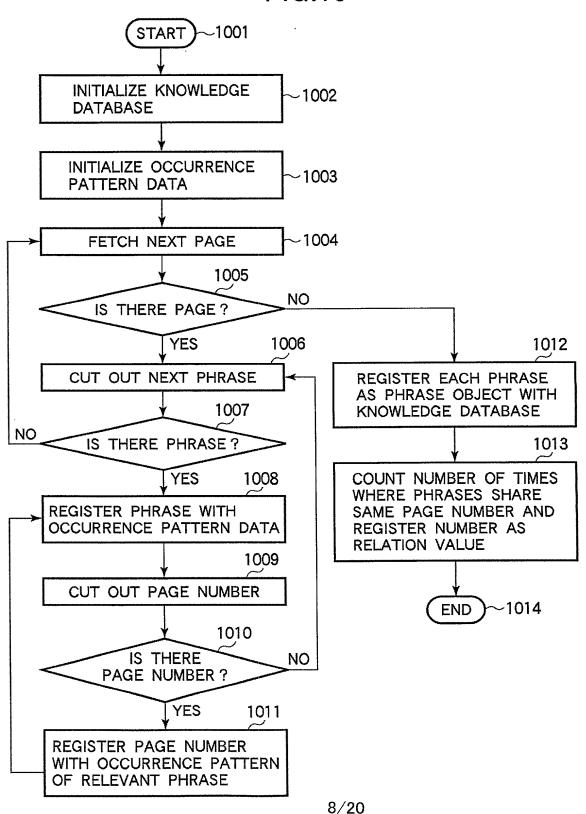


FIG.10



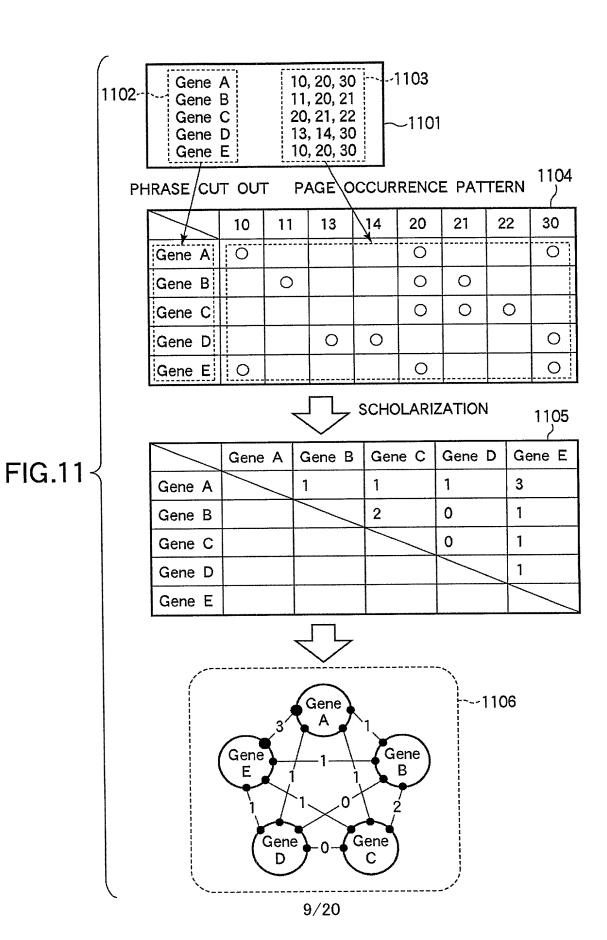
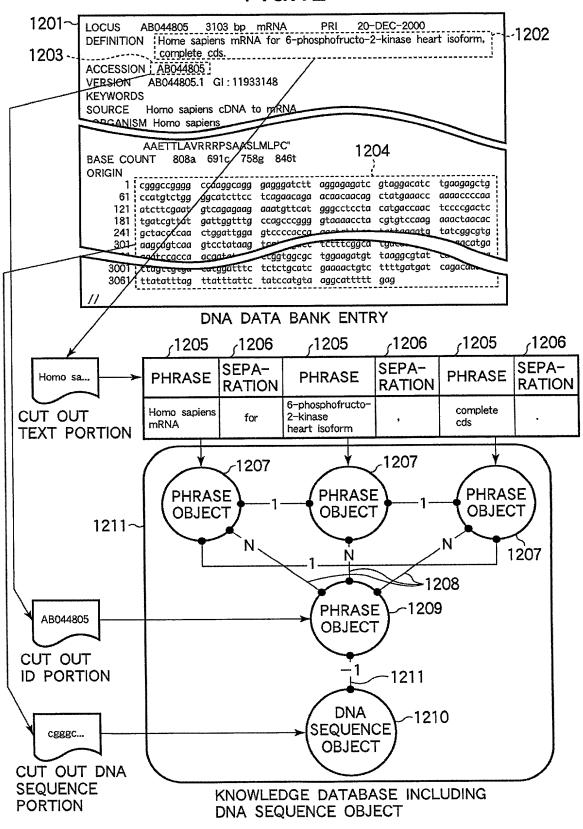
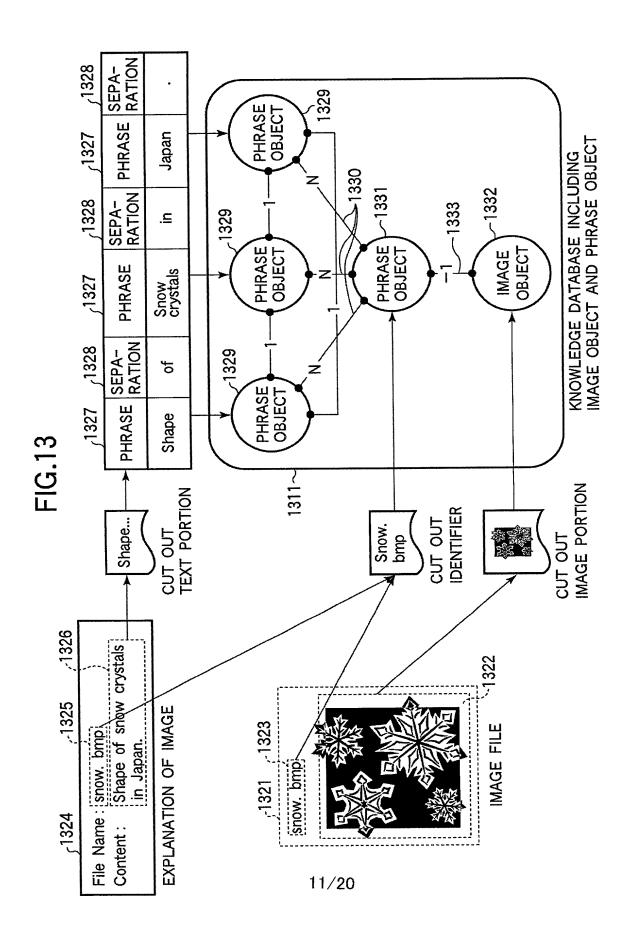
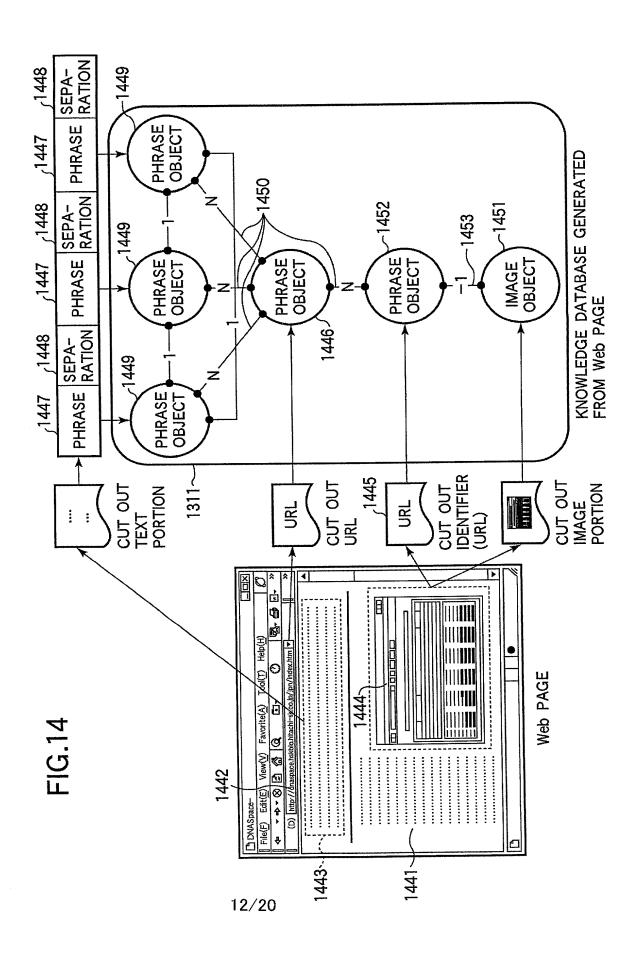


FIG.12







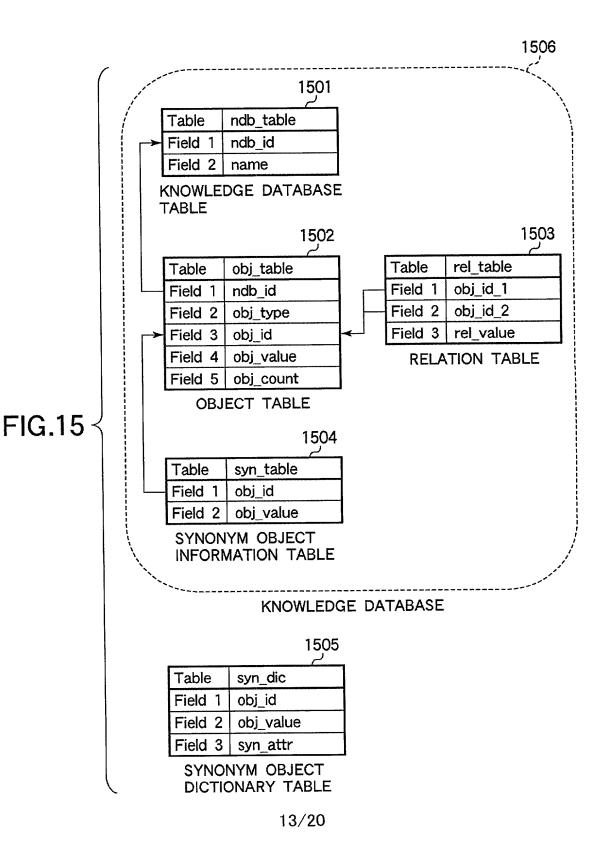


FIG.16

1601 DATABASE NAME: SAMPLE NDB 1602 NUMBER OF **TYPE** No VALUE **OCCURRENCE TIMES PHRASE** DISEASE A 15 DISEASE B 10 2 **PHRASE** GENE A 10 **PHRASE** 3 GENE B 5 **PHRASE** 4 10 **PHRASE** GENE C 5 ACGTTCGTTAC... 6 DNA SEQUENCE 7 CAGGTCTAAAC... DNA SEQUENCE ACCTTCGTTAC... DNA SEQUENCE **OBJECT DATA** 1603 No. 7 8 6 4 5 1 2 3 No' 10 0 0 0 0 0 0 10 0 0 0 2 3 0 -1 0 4 0 0 -1 0 -1 5 0 0 1 20 6 **RELATION DATA**

FIG.17

	114.17	1701
ndb_id	NAME	
{0701B3FE-775E-4BD0- A851-254397F47B98}	SAMPLE NDB	

KNOWLEDGE DATABASE TABLE

1702

ndb_id	obj_id	obj_type	obj_value	obj_count
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD1- A851-254397F47B98}	PHRASE	DISEASE A	15
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD2- A851-254397F47B98}	PHRASE	DISEASE B	10
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD3- A851-254397F47B98}	PHRASE	GENE A	10
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD4- A851-254397F47B98}	PHRASE	GENE B	5
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD5- A851-254397F47B98}	PHRASE	GENE C	10
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD6- A851-254397F47B98}	DNA	ACGTTCGTTAC	NULL
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD7- A851-254397F47B98}	DNA	CAGGTCTAAAC	NULL
{0701B3FE-775E-4BD0- A851-254397F47B98}	{0701B3FE-775E-4BD8- A851-254397F47B98}	DNA	ACCTTCGTTAC	NULL

OBJECT TABLE

1703

ndb_id_1	obj_id_2	rel_value
{0701B3FE-775E-4BD1- A851-254397F47B98}	{0701B3FE-775E-4BD3- A851-254397F47B98}	10
{0701B3FE-775E-4BD1- A851-254397F47B98}	{0701B3FE-775E-4BD4- A851-254397F47B98}	10
{0701B3FE-775E-4BD2- A851-254397F47B98}	{0701B3FE-775E-4BD5- A851-254397F47B98}	10
{0701B3FE-775E-4BD3- A851-254397F47B98}	{0701B3FE-775E-4BD6- A851-254397F47B98}	-1
{0701B3FE-775E-4BD4- A851-254397F47B98}	{0701B3FE-775E-4BD7- A851-254397F47B98}	-1
{0701B3FE-775E-4BD5- A851-254397F47B98}	{0701B3FE-775E-4BD8- A851-254397F47B98}	-1
{0701B3FE-775E-4BD6- A851-254397F47B98}	{0701B3FE-775E-4BD7- A851-254397F47B98}	1
{0701B3FE-775E-4BD6- A851-254397F47B98}	{0701B3FE-775E-4BD8- A851-254397F47B98}	10
{0701B3FE-775E-4BD7- A851-254397F47B98}	{0701B3FE-775E-4BD8- A851-254397F47B98}	1

RELATION TABLE

FIG.18

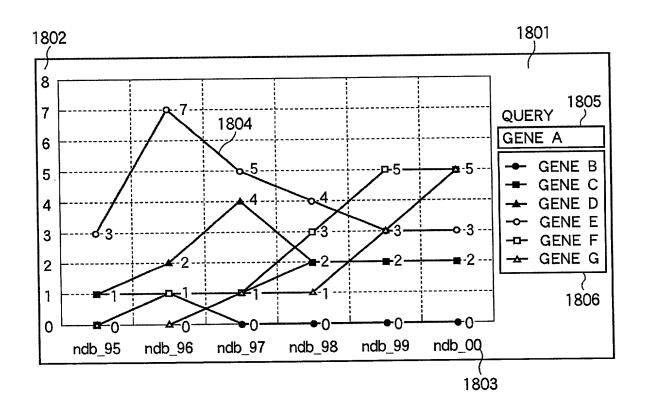
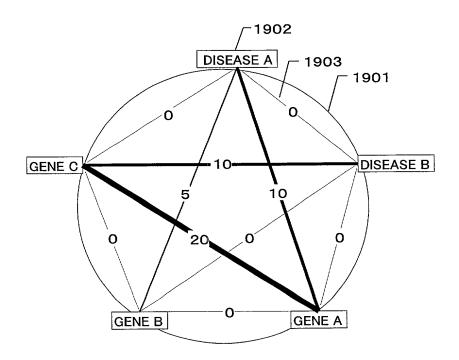
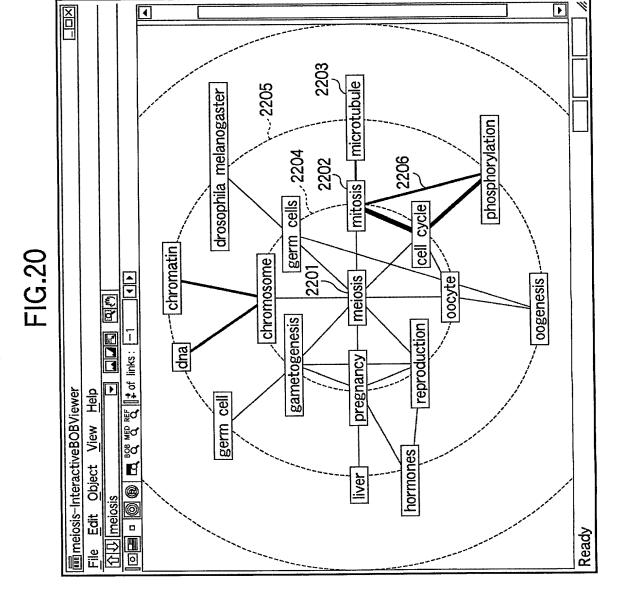


FIG. 19





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FIG.21

